



ELEVATOR SAFETY BOARD MEETING

MARCH 13, 2006

**LOCATION: MISSOURI DIVISION OF FIRE SAFETY, 2401 E MCCARTY STREET
JEFFERSON CITY, MISSOURI**

BOARD MEMEBERS PRESENT

**John McNerney
George Lodes
Suzan Mehalko
Kay Donovan
Gerri Kielhofner (via conference call)
Wilson Winn (via conference call)
Tom Corso**

BOARD MEMEBERS ABSENT

**Mark James, Dir. of Public Safety
J A Marchack**

STAFF PRESENT

**Randy Cole, State Fire Marshal
Greg Carroll, Asst. State Fire Marshal
Larry Watson, Deputy Chief Elev Safety
Amiee Forck, Elevator Safety Unit
Wendy Eiss, State Elevator Inspector
Jill Lahue, Dept. of Public Safety**

VISITORS

**Jack Holley, ThyssenKrupp Elevator
Rory Smith, ThyssenKrupp Elevator
Jim Chapman II, Elev Consultants #12**

Chairman McNerney called the meeting to order at 10:10 AM. The meeting was delayed due to difficulty connecting the conference call.

Mr. Cole advised the Board of the situation with machine roomless elevator which required an emergency meeting. Safety Issues have surfaced with the new technology that has raised some questions regarding the variances granted allowing machine roomless units to be installed in Missouri. During a meeting with the Governor's staff on Friday March 10th, 2006 questions were raised as to the reasoning the Elevator Safety Board used in granting variances on equipment outside the scope of the ASME Code.

Since the meeting reverification of the ASME Code does allow for the installation of new technology if it can be proven it meets or exceeds what the current ASME Code states. The Division sent a letter to ThyssenKrupp after safety issues were discovered with machine roomless elevators in California, North Carolina and Ohio stating our concerns and requesting a time line of when corrective measures could be placed on the units currently operating in the State of Missouri. The response back from ThyssenKrupp in our opinion was not acceptable.

We surveyed the Board members to get feedback on the response from ThyssenKrupp and the Board is also concerned that a better time frame is needed to complete the installation of the retro fits on the existing elevators identified by ThyssenKrupp in the State of Missouri.

On Thursday, March 9, 2006 an incident in North Carolina occurred where a unit had to be shut down after having the retro fit components installed with the exception of the aluminum sheave. Therefore, we are here today to review these issues on these elevators to determine if the existing units should remain in service and to decide whether or not the Board should continue to accept machine roomless elevator installation until the AMSE Code fully addresses the requirements.

We need to resolve how to handle existing units in place and how to handle the units under construction currently being installed. Many of these units are located in the new Busch Stadium. It is my understanding the retro fit equipment is available for the units at Busch Stadium and the retro fits will be installed prior to the stadium opening. However, with the North Carolina incident I am not convinced that the retro fit is the fix and we need to discuss the matter.

Chairman McNerney commented, "On the retro fit we are discussing, the original units have a non-metallic sheave. I believe what they are doing is installing a different type of sheave."

Rory Smith, Executive Vice President of Research and Development of ThyssenKrupp North America commented, "I am also the responsible managing officer for ThyssenKrupp Elevator in California and I hold the contractors license. Also under the Model Elevator Law I am the qualified contractor, so I am the person the State Elevator people call when there is an issue in California. So I have been involved with the issues in California and that's where we first agreed to install the aluminum alloy sheaves. Now the original sheaves we were installing were a thermo set plastic material made by a company in Germany called Beckeritt. It has a very high friction factor when the rope is not slipping traction, but unlike most materials when it does slip traction the friction factor goes up very high and it abrades the rope. So we have gone to a 60/61 alloy aluminum that gives us a little less coefficient of friction we have to deal with that in some other ways, but when it does break traction it doesn't abrade the rope through nearly as rapidly as the traditional one. Now any sheave or pulley with a wire rope if it spins for a long enough time will either destroy the sheaves, the rope or both. In Europe for instance all elevators are require to have a timer. If traction is broken for longer than 45 seconds the unit will shut down. Forty-five seconds would create no problems with the aluminum sheaves we currently have in place and so we have retro fitted all existing elevators in California as of Friday with the aluminum sheaves."

Chairman McNerney asked, "The elevator that we are talking about right now is the one in North Carolina. Did it have the retro fitted sheave?" Mr. Smith replied, "I investigated it on Friday. It did not have the retro fitted sheave."

Mr. Cole asked, "Is that the only retro fit it did not have? Did it have the other issues corrected that are being addressed in California?"

Mr. Smith replied, "No, there are really three things that are being done in California. First we install a dual encoder module (DEM) board it compares the rotation speed of the drive sheave with the speed of the elevator. It is designed to detect anytime the sheave turn 90 degrees without the corresponding movement of the elevator. A 90 degree turn requires the unit to shut down. The second is installing the aluminum sheaves. The third item is installing a pyrometer to sense temperature. California has requested a unit be shut down whenever the sheave reaches 400 degrees F."

Chairman McNerney asked, "So we are detecting this on the sheave or the area around the sheave?" Mr. Smith replied, "Actually on the side of the sheave. If it is 70 degrees in the shaft and the pyrometer reads 170 or higher it will shut down the elevator."

Mr. Winn asked/commented, "Any other failures that have occurred with these elevators and the Kevlar rope did any of them have the retro fit?"

Mr. Smith replied, "The one in North Carolina had the DEM Board installed, but the output of the DEM Board was jumpered out because it was during the course of the inspection along with the plank switch. It did not have the aluminum sheaves or pyrometer, if those had been installed the abrading through the rope would not have occurred and if it had ran long enough the sheave would have gotten hot enough to shut the elevator down."

"We've have actually simulated this in our test tower in Mississippi where we have attempted to abrade through the ropes. We spun the sheave and conducted a destructive test. The temperature of the sheave got up to 450 degrees C and then the test ended because the machine seized and bearings froze. This was done at high speed most of these incidents have occurred in leveling speed or during adjustment and so we tried setting that up, there we only got to about 6 minutes and the variable frequency drive faulted and shut down the unit. If the aluminum sheaves had been installed it would not have happened. If the pyrometer had been installed would it would have detected the heat and shut the system down?"

Mr. Winn asked, "Did any of the failures occur during normal operation or were they all related to testing situations?"

Mr. Smith replied, "There was one failure that occurred last May at a project called the House of Blues, in Ohio. There the failure occurred because the software used to detect loss of traction was configured in such a way the mechanic could disable it and it was disabled. Following that we modified the software so that it could not be disabled. Every other event had been related to adjusting. One of the things we have found is elevators break traction all the time during adjustment, but we are always counting on the mechanic in the machine room, to intercede, stop the test and find out what is wrong."

"Since we are dealing with a machine roomless unit, the mechanic is no longer able to see or hear what is going on so have installed additional methods to make sure they cannot inadvertently disable anything. We have had to harden how we approach things and not give them the adjustments available previously because they are not in the same position to intercede as they once were. It was a learning curve on our part and I would say that applies to everybody else in the machine roomless business. The person is no longer there looking at the equipment like they once were we cannot count on them because they are not able to see or hear what is going on."

Mr. Cole asked, "What assurances can you give us that the retro fit is going to solve these issues? You have presented us with retro fit issues like you did in California, but how do we know the retro fits are going to be adequate enough to avoid any failures like those that have occurred while not under normal operating conditions."

Mr. Smith replied, "We can give you any assurances you want we can indemnify the State and Board Members against anything but beyond that you have to consider the fact that we are legally responsible for anything we install and we do not want to hurt anyone and we are going to bear the brunt of any accidents that do occur. "

Mr. Cole responded "But so are we because we have granted variances to install this equipment outside of the current ASME Code adopted by the State of Missouri."

Mr. Smith continued, "We are certain the things we have done in California will prevent any future incidents. I would like to point out there are two proposed amendments to the AMSE Code one is the Machine Roomless Code which is in the sequence to become adopted very soon and the units we are putting in are in accordance with that Code."

Mr. Cole commented, "Except for the rope issue."

Mr. Smith commented, "No, the ropes are not covered by the Machine Roomless Code the ropes are covered by the Alternative Suspension Means, which is another packet of Code work. It covers belts and air amid rope it requires a system be installed to detect loss of traction within 90 degrees."

Mr. Cole asked, "Do you have any idea why ASME did not address the rope issue when they addressed the other issues with machine roomless elevators?" Mr. Smith replied, "Yes sir, because they really have had two separate teams working on this, one for the machine roomless elevators and one for alternative suspension. Both teams were started prior to 2000."

Mr. Cole asked, "Do you know how many machine roomless elevators are operating in the United States?" Mr. Smith commented, "We have installed about 1,000. I believe Otis has installed at least that many if not more, probably 2000."

Mr. Cole asked, "What about in Europe? It is my understanding they have been in Europe for quite some time." Mr. Smith replied, "There are hundreds of thousands in Europe. You have to remember the US elevator market in a year is 25,000 units. Italy in a good year is 18,000 units. In Western Europe approximately 120,000 units are installed per year and about 60% are machine roomless."

Mr. Cole asked, "Are you aware of any failures in any units in Europe that have been put into operation?" Mr. Smith replied, "No, I was responsible for getting the air amid rope approved for use in Europe. It was certified following a risk assessment process. In the approval we have to detect loss of traction at 90 degrees at which time the unit should shut down."

Mr. Lodes asked, "What were you using in Europe prior to this or are you not using the approved rope?" Mr. Smith replied, "We are not using much air amid rope. We are using 6 mm rope which is smaller than 3/8-inch. It requires a very aggressive sheave groove profile that will abrade through the wire ropes in about one minute. So everybody had the same requirement to detect loss of traction."

Chairman McNerney commented, "In the State of Missouri we have a list of six units that have been turned over and are in operation at this time. I am assuming each one has only one elevator."

Mr. Holley, ThyssenKrupp Vice President of Service Operations commented, "We have two types of elevators ISIS1 and ISIS2. We have turned over Central Bank, Kirkwood Condo, Missouri Council of School Administration, New City School, St. Joseph West- elevators 1, 2, 3 & 4 which are ISIS2 units."

Mr. Winn commented, "We have a total of nine in Missouri." Mr. Holley replied, "We have some in Springfield as well Cedar Green Condos, Cedar Heights Condo II, Meridian Condos, Seascape Condos and Tuscany Condos. There are quite a few under construction."

Mr. Lodes commented, "I counted about sixteen."

Mr. Cole asked, "How many to you estimate you have that have not been turned over?" Mr. Holley replied, "Approximately 16 have not been turned over."

Mr. Cole commented, "It sounds like there some on the list that we have not been involved in the process."

Deputy Chief Watson commented, "We have the permits and have approved them, but we have not gotten any inspection reports stating they have been turned over."

Mrs. Donovan asked, "Do you know for sure they have been inspected?" Mr. Holley replied, "According to Dave Taylor."

Mr. Winn commented, "I think we are getting off track as to whether or not they have been turned over. We need to focus on whether or not this retro fit is going to be acceptable."

Chairman McNerney asked, "In the letter dated February 27, 2006 from Mr. Holley, you want to wait until September 30, 2006 to retro fit all the units that have been installed?" Mr. Holley replied, "We have had discussions regarding those times frames and end dates we are willing to change the dates. What I would like to propose is one week for each unit that has been turned over to complete the retro fit. Seven weeks from Monday will be 100% completed with units previously turned over. I will send a letter with the specific dates. As far as the units still under construction when we do the acceptance test all the retro fits will be installed."

Mr. Smith commented, "What we have been required to do in North Carolina and California since the beginning of January, every time we retro fit a unit we call for a separate inspection. We have a series of nine tests we go through to demonstrate all the redundant systems are working."

Mr. Cole asked, "Deputy Chief Watson are all the third party inspectors familiar with this?" Deputy Chief Watson replied, "We sent out the information on all nine tests to all the inspectors."

Mr. Smith commented, "I have a power point presentation that goes through the various tests to show what they are supposed to do more graphically for both the ISIS1 and ISIS2 units."

Deputy Chief Watson commented, "It would be good to have a copy I would like to show it at our inspectors meetings. I have one next month in Kansas City."

Mr. Corso asked, "What are we going to do with the cars currently in operation? Are we going to leave them in operation or shut them down?" Mr. Cole replied, "I can tell you from the Governor's Office meeting Friday one individual didn't believe we had enough information to make it necessary to shut down the units."

Ms. Lahue commented, "I think the statement was we do not have enough evidence at this point that these are actually unsafe to shut them down across the board. However, that is up to the Board to determine."

Mr. Holley commented, "Basically the software that is installed is installed to protect these units and the only time we have had situations is when we are conducting the learn test during an adjustment procedure prior to final acceptance. That was the only way it was over ridden. The general public would never ride the units because it is in a controlled environment. So the condition in which the general public is riding the elevators is safe. The software is there to protect the unit."

Mr. Lodes commented, "In other words every situation you have had has been during the testing period."

Mr. Holley replied, "Since we have installed the software that does not allow the mechanics to by-pass that function, yes that is a correct statement."

Mr. Smith commented, "We as a company would shut the elevator down if we thought there was any risk."

Chairman McNerney commented, "On this Board we have seven people representing different interests in the State. Most of the contracts are on a monthly service contract would it be worthwhile having a mechanic there to ensure the safety of the units in question."

Mr. Holley commented, "We have not implemented a periodic testing of the slipping because we test it pretty thoroughly when we implemented the new software. One of the reasons we put the seven weeks out there is because we felt there is going to be access situations and we are not going to be able to shut it down during the day. So we will be working on these units during evenings and weekends. We wanted to provide a set schedule to inspect a location every Monday until complete. I honestly do not feel it will take seven weeks. We should be able to complete within a month. I am in control of the labor force; we are going to do the three cities concurrently. Set up a repair team and they will only work on this until completed."

Mr. Lodes asked, "Do you know the availability of the sheaves?" Mr. Smith replied, "Yes sir."

Mr. Holley commented, "Actually Mr. Smith is in charge of providing the sheaves. We have them. Right now we are scheduled to conduct test at the Cardinals ball park this week. According to the letter previously written we will have all the retro fits in place prior to the acceptance."

Deputy Chief Watson asked, "Including the software that has been changed since the incident in North Carolina?" Mr. Holley replied, "Yes."

Mr. Smith commented, "Actually the software that was installed in North Carolina will be installed by the end of the day today."

Mr. Lodes asked, "Do all the units have the software the mechanic cannot override installed and do we know where they are?" Mr. Smith commented, "Yes."

Deputy Chief Watson commented, "Over the weekend I had some of the State Inspectors look at some of the units that are in operation right now. Inspector Daus went to a location Farmington he said they looked good. Inspector Eiss looked at one this morning the outer coating looked like it was starting to bunch."

Mr. Smith advised the Board the replacement criteria are if you see the yellow Kevlar you replace the rope. A little bit of bunch called the "loose sock" is usually at the extreme ends of the rope not in the middle.

Inspector Eiss replied, "No it was not it was toward the middle. Mr. Smith commented, "Then that would be something that needs to be investigated. A little of abrasion or small fuzz balls is normal. The first item to fail is the jacket. Therefore if you see yellow you replace the rope."

Mr. Lodes asked, "In this case where you had this slippage of the sheave have any of these ropes actually parted?" Mr. Smith replied, "Yes sir."

Mrs. Mehalko asked, "This has all occurred during testing of the elevators?" Mr. Smith commented, "Except for that one incident at the House of Blues in Cleveland where the service person had the ability to disable it."

Mrs. Donovan commented, "That was more human error than equipment error."

Mr. Smith commented, "It was human error because the software allowed the service person to disable the equipment."

Mrs. Donovan commented, "I think it is important to note the problems only occurred after it was turned over and human/software error allowed the mechanics to make changes that caused the situations to happen."

Mr. Cole asked, "In the other three was human error a contributing factor?" Mr. Smith commented, "Yes, it was. There was an incident in California where when we initially turn over an elevator we take it through a learning mode to store the floor length. In that case the limit switches were not set properly and the car came down and the sheave continued to spin. In my mind also there was human error in setting up the limit switches, but the thing is you cannot put it on learn mode and walk away."

Mr. Cole asked, "The others that occurred before the incident in North Carolina, were due to what?"

Mr. Smith replied, "There was one a year ago in California March 2005 during a training test. The ropes entirely failed."

Mrs. Mehalko asked, "Is there counterweights with this unit? What happens to them when this happens?" Mr. Smith replied, "They drop to the bottom."

Mrs. Donovan asked, "Was anyone injured?" Mr. Smith replied, "No one was injured."

Mr. Cole commented, "I guess from my perspective we are looking at two issues here, the first issue is the Board comfortable with time frame ThyssenKrupp has indicated with the existing units. The other issue is how does the Board feel about continuing to grant variances on this equipment prior to the ASME Code being in place."

Mr. Holley commented, "We will go upgrade the units by installing the aluminum sheaves which will not burn through the ropes and install the DEM Board with the latest and greatest software. We are going to set designated teams to do this as quickly as possible."

Mr. Cole asked, "How do you know the aluminum will not burn through the ropes?" Mr. Smith replied, "Any sheave with any kind of rope has the ability to abrade the rope through so does the aluminum. It just takes a lot longer because of the characteristics of the aluminum. We did a test to try to abrade through the rope with the aluminum sheave before we implemented them in California and what we found was after a certain period of time the nylon jacket comes off the sheave gets up to 400 degrees C at which point the Kevlar rope deteriorates and it abraded through the outer layer of Kevlar. The inner layer of Kevlar is doped with Teflon dust when it got to that point the dust was lubricating the sheave and the temperature dropped from 400 degrees C to 170 degrees C. After five hours we turned off the machine because it had not abraded through."

Mr. Cole commented and asked, "One the questions or suggestions that came up when we met with the Governor's Office was the thought of having an independent engineer look at this documentation to have an independent opinion of this. What would it take to do that?"

Mr. Smith replied, "We would be happy to hire an independent engineer. We would be willing to do that. We are confident that we have a safe product that we are not going to hurt anybody. What do you need?"

Mr. Cole asked, "What would it take for example to have an engineer from the University of Missouri-Rolla review documentation to have an opinion?"

Mrs. Donovan commented, "How about the test conducted in California with the video taping?"

Mr. Smith replied, "We have a lot of test data and some video taping. We use an independent test laboratory Tension Member Technology in Huntington Beach, California they are kind of the world authority on ropes. They test all the specialized ropes and tension members that go into off shore oil platforms. They do a lot of work for the CIA. We have had them conduct the test and all the data is available."

Mr. Lodes asked, "Would that test data be good enough for what we want?" Mr. Cole replied, "I don't know. That was one of the questions that was brought up as a solution."

Mr. Lodes commented, "When we first met and talked about these ropes we had all kinds of data, but what had happened this particular method of rope slippage was never deemed to be a problem. The fact was not known they would slip and it was never looked at. We had all kinds of data about the strength and the resistance on these ropes. Is this something we need to look at specifically?"

Mr. Smith commented, "Our failure as a company has not been that we didn't recognize this as a problem we did, it's that we implemented our software inappropriately so that we permitted these safety devices to be overridden. In our application which is several years old in Europe we clearly state the 90 degrees. So we've known there is the potential there, but our problem has been that we didn't think through how can this be overridden and we give people the power to over ride it and we have taken that away."

Mr. Donovan commented, "So what you're saying is it not the integrity of the rope, but the software allowed the sheave to continue to spin."

Mr. Smith commented, "What we have done since then in addition to improving the software, we have changed the sheaves to give people a longer time to discover a problem with the unit and not damage the rope. If you take a coated steel belted rope if you spin the sheave for 10 seconds you will destroy rope because your have abraded through the ployurtene. The tension members are still in tact but the material is shot. We wanted to eliminate any kind of situation where we would have to replace the ropes prematurely, by going to the aluminum sheaves we can spin the rope a few times or a lot of times and not damage the rope. We did a presentation for the State of California, installed the aluminum sheaves, they installed the old software to simulate the incident that had occurred previously. The ran the test for three minutes at the end of the three minutes we were at 90 degrees F, then we taped off the section of the rope being spun and could see no damage to the rope. They also required the pyrometer to be installed."

Mr. Cole asked, "Is there something in your documentation that tells an owner how often they have to change the Kevlar rope?" Mr. Smith replied, "No, our statement is when you see yellow the ropes have to be changed."

Mr. Corso stated, "So the retro fit is the aluminum sheave, pyrometer and the software telling relationship between the sheave and the car and the dual encoder modular."

Mr. Smith commented, "The dual encoder modular and the car software are what California has stated is prevention and it is."

Mr. Corso asked, "Is that ThyssenKrupp stance for across the country?" Mr. Smith replied, "Yes."

Mr. Cole asked, "As far as shutting down the existing units, as a result of Friday's meeting we are notifying all the owners of the units that have been turned over advising them of a potential safety concern. We are not to a point of shutting them down that it the owner's choice. We are telling them this could be an issue you decide whether you want to shut it down. Then we are sending our State Inspectors out to look at the ropes and make sure nothing has happened to them and then ThyssenKrupp within a certain time frame will have retro fits completed to the existing units."

Mr. Corso asked, "Does the retro fit you are proposing include the pyrometer or not?" Mr. Holley replied, "Yes it does."

Mr. Smith asked, "Could we retro fit an installation and then make a demonstration to you like we did in California, where we go through all the tests?" Deputy Chief Watson replied, "I would appreciate it so I can have all my State Inspectors there to see that. It would help reassure me."

Mr. Cole asked, "Could you see if you can do the one here in Jefferson City?" Mr. Holley replied, "Yes."

Mr. Winn asked, "Are we going to need to take a vote? If we are I need to get going on the conference call."

Mr. Cole replied, "Yes. The first issue is the retro fit and the time frame that ThyssenKrupp is now proposing does the Board agree and accept that? The second issue would be should the Board continue to provide variances for future installations as long as they have the retro fit?"

Chairman McNerney asked, "Mr. Winn is any of these units installed in Kansas City?" Mr. Winn replied, "I do not think we have any in Kansas City, Missouri. I think there is one in Kansas City, Kansas."

Mr. Holley commented, "I am unaware of any units installed in the Kansas City. If there are any they would have been sold within the last three weeks."

Mrs. Donovan asked, "Deputy Chief Watson is it your intention whenever these retro fits are to have a State Inspector there?"

Chairman McNerney commented, "I feel we should accept the proposal for the retro fits by April 17, 2006 and after that date red tag every elevator that has not been completed. I think there is a major safety concern involved with them. I would like a guarantee that units are safe. I just want to be sure we are not putting general public in danger."

Mr. Holley commented, "I feel we can complete it within five weeks."

Mr. Lodes commented, "I do not have a problem with the five weeks, but one of the things we have to remember here is the reason for these failures in every case is human error. I am concerned with you getting information to the mechanics in the field that they absolutely do nothing to the units until the

retro fits are installed. Number one you have all of the safety features in place that should be there that should and would stop the elevators, so we need to make sure no one touches them until the retro fits are in place.”

Mr. Winn commented, “I have to step away from the phone for five minutes.”

Five minute break was taken.

Mr. Smith suggested considering postpone a decision on future variances until the next meeting after the retro fit and testing has been witnessed. We would like to make the demonstration as soon as possible. The sooner the better for everyone.”

The retro fit testing was scheduled for April 21, 2006.

Mr. Cole reiterated, “On April 21st you are going to show our inspectors the process and what these retro fits have done. Then on April 22nd the Board can make a decision as to whether should halt all installations of machine roomless elevator until ASME Code is adopted.”

Mr. Winn asked, “On the supplement for alternative ropes, where in the process stand?” Deputy Chief Watson replied, “Still in the process.” Mr. Cole commented, “And it may be next year, next year meaning 2007.”

Mr. Cole asked, “So is it agreeable then, March 21st witness the retro fit and testing and on March 22nd decide the second issue. Mr. Winn and Mrs. Kielhofner agreed.

Mr. Cole continued, “Then the only issue you need to vote one is whether to accept ThyssenKrupp proposal for having the retro fits on the existing devices that have been turned over by April 17, 2006.

Chairman McNerney commented, “Again I think that we could probably do that, but my question to Thyssen is this. If we approve this today and give you that time frame and some freakish thing happens and we have an accident.

Mr. Corso commented, “Also like Deputy Chief Watson said we are sending notification to all the owners and it is their choice whether or not to shut them down.”

Mr. Cole commented, “We are also sending out an inspector to look at the ropes to make sure there is no problem with the ropes.”

Chairman McNerney asked, “Would there be a problem with ThyssenKrupp sending a mechanic to these jobs within the next day to make sure everything is working properly or is that an overkill type of thing?”

Mr. Holley replied, “It’s not overkill I don’t have a problem with doing it. To answer your question is no. I will have a mechanic go check every unit and perform the M60 test by the end of the week.”

Mr. Lodes asked, “What is the M60 test?” Mr. Holley replied, “It basically to make sure the software is in place to provide shut down at a 90 degree spin.”

Mr. Cole commented, “As long as a mechanic does not jump anything out.”

Chairman McNerney motioned to accept the following statements: ThyssenKrupp has until April 17, 2006 to complete the retro fits. The Division will send out notification to all the customers regarding the situation as soon as possible. Make sure they understand they can red tag their own elevator if they want to do that and prior to the end of this week ThyssenKrupp will have a mechanic stop by to check the unit. Motioned seconded by Mr. Winn. Motion passed unanimously. Mrs. Donovan abstained from voting.